

No.

8400044



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Rijk Zwaan**  
Zaadteelt en Zaadhandel, B.V.  
Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (54 Stat. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

CAULIFLOWER

'Triton'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 28th day of June in the year of our Lord one thousand nine hundred and eighty-five.

Attest:

*Kenneth H. Lee*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*John R. Block*  
Secretary of Agriculture







# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1. NAME OF APPLICANT(S) B.V. Rijk Zwaan Zaadteelt en Zaadhandel		2. TEMPORARY DESIGNATION Type 625 RZ		3. VARIETY NAME <b>TRITON</b>	
4. ADDRESS (Street and No. or R.F.D. No., City, State, and Zip Code) P.O. Box 40 2678 ZG De Lier, The Netherlands		5. PHONE (Include area code) 01745 - 3941		FOR OFFICIAL USE ONLY PVPO NUMBER <b>8400044</b>	
6. GENUS AND SPECIES NAME Brassica Oleracea L. va. botrytis		7. FAMILY NAME (Botanical) Cruciferae		FILING DATE <b>2/3/84</b> TIME <b>2:30</b> <input type="checkbox"/> A.M. <input checked="" type="checkbox"/> P.M.	
8. KIND NAME Cauliflower		9. DATE OF DETERMINATION		FEES RECEIVED AMOUNT FOR FILING \$ <b>1,000</b> DATE <b>2/3/84</b> AMOUNT FOR CERTIFICATE \$ <b>500.00</b> DATE <b>4/2/85</b>	
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) corporation				11. IF INCORPORATED, GIVE STATE OF INCORPORATION Holland	
12. DATE OF INCORPORATION 18-08-1953				13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS	

## 14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

- a. ☒ Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- b. ☒ Exhibit B, Novelty Statement
- c. ☒ Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- d. ☒ Exhibit D, Additional Description of the Variety

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act.) ☐ Yes (If "Yes," answer items 16 and 17 below) ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? ☐ Yes ☐ No

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? ☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) FILE FOR PROTECTION OF THE VARIETY IN THE U.S. OR OTHER COUNTRIES?  
The Netherlands ☒ Yes (If "Yes," give names of countries and dates) ☐ No

19. HAVE RIGHTS BEEN GRANTED IN THE U.S. OR OTHER COUNTRIES? ☐ Yes (If "Yes," give names of countries and dates) ☒ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT <i>Rijk Zwaan</i> Zaadteelt en Zaadhandel B.V.	DATE <b>26/1-84</b>
SIGNATURE OF APPLICANT	DATE



## INSTRUCTIONS

General: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$1000 fee ( \$500 filing fee and \$500 examination fee) to U.S. Department of Agriculture, Agricultural Marketing Service, Livestock, Meat, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

### Item

- 9 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 14a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- 14b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 14c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 14d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 15 If "Yes" is specified (*seed of this variety be sold by variety name only as a class of certified seed*) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "No," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 16 See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Re: Cauliflower <Nr. 625 RZ> 'TRITON' djs 4/2/65

E X H I B I T   A

Origin and Breeding History of the variety:

1. ~~Nr. 625 RZ~~ 'TRITON' originated from a hand crossing in 1964 between Flora Blanca and own white flowering breeding material.

2. Pure line selections were made on plant-type, maturity, uniformity and quality for 9 generations on trial fields in the Netherlands and Western Germany.

The genetic make-up of the variety was stabelized in the fifth generation. After that, production tests have been carried out under mass and line selection.

'TRITON'  
~~Nr. 625 RZ~~ appeared to be stable and uniform during the last 4 generations, both in our trials and official tests of N.A.K.G.

Within the limits of a crosspollinating cultivar no variants have been found.



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EXHIBIT A

Origin and Breeding History of the Variety:

1. W-522 is a derivative from a cross made in 1964 between Flora Blanca and a new white-flowering breeding material.

2. Pure line selections were made on plant-type, maturity, uniformity and quality for 3 generations on trial fields in the Netherlands and West Germany.

The genetic make-up of the variety was stabilized in the fifth generation. After that, production tests have been carried out on various soil types and line selection.

3. W-522 appeared to be stable and uniform during the first 4 generations, both in our trials and official tests of W.A.R.I.

Within the limits of a cross-pollinating cultivar no variants have been found.

Re: Cauliflower <Nr. 625 RZ> 'TRITON' n/s 4/2/85

E X H I B I T    B

Novelty Statement.

The novelty is based upon unique combination of:

- Upright growth habit
- Genetic white blooming

with strong vigour, complete curd covering, dark blueish green leaf colour of own breeding material.

'TRITON'

~~Nr. 625 RZ~~ is most similar to Celesta  
however Nr. 625 RZ is later maturing  
has a somewhat more erect growing habit  
less pinking and less susceptible to riciness.

Hollandse normal 3

M. U. 3.

See: Cauliflower No. 627

EXHIBIT B

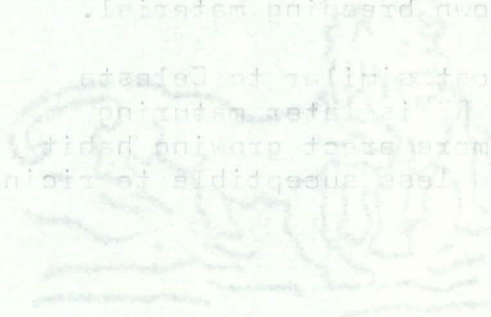
Novelty Statement.

The novelty is based upon unique combination of:

- Upright growth habit
- Genetic white blooming

with strong vigorous, complete cord covering, dark bluish green leaf colour of own breeding material.

Nov. 627 is not similar to Colasta however, No. 627 is a later maturing has a somewhat more erect growing habit less pinkish and less susceptible to rotting.



Edinburgh, Scotland

M. B. S.



Volgblad No  
dd

Additional information we got from our trial field  
sown in June 1984 from N.A.K.G. and R.I.V.R.O.



8400044- EXHIBIT B n/s

CAULIFLOWER <TYPE 625 RZ>

'TRITON'

n/s 4/2/85

- |                 |                                   |                               |
|-----------------|-----------------------------------|-------------------------------|
| 3. Maturity     | 5 days after Celesta              |                               |
| 4. Plant height | 5 cm shorter than Celesta         |                               |
| 5. Leaves:      |                                   |                               |
| number          | 4 more than Celesta               |                               |
| length          | 5 cm shorter than Celesta         |                               |
| width           | 3 cm wider than Celesta           |                               |
| color           | 3 = dark green (Lecerf group)     | (Celesta gray green)          |
| solidity        | thicker, more solid than Celesta  |                               |
| 6. Curd         | smooth                            | (Celesta - knobby)            |
| color           | 1 bright-white                    |                               |
| shape           | 2 semi-dome, rounder than Celesta |                               |
| texture         | smooth                            | (Celesta - slightly grainy)   |
| 8. Riceyness    | 2 resistant                       | (Celesta - slightly suscept.) |
| Seed            | somewhat larger than Celesta      |                               |



Additional information was not from our field  
down in June 1984 from W.K.S. and S.L.V.R.D.

CAULIFLOWER TYPE 202

6 days after Calista  
2 cm shorter than Calista  
4 more than Calista  
8 cm shorter than Calista  
1 cm wider than Calista  
3 - 4 cm green (leaves green)  
thinner more solid than Calista

1. Maturity  
2. Plant height  
3. Leaves:  
number  
length  
width  
color  
solidity

*Calista normal 3*

1 bright-white  
2 seeds down rounder than Calista  
another  
2 resistant  
somewhat larger than Calista

4. Turn  
color  
shape  
texture  
5. (Ripeness)  
seed





U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
GRAIN DIVISION  
HYATTSVILLE, MARYLAND 20782  
**OBJECTIVE DESCRIPTION OF VARIETY**  
**CAULIFLOWER**  
(*Brassica oleracea* var. *botrytis*)

NAME OF APPLICANT(S) Rijk Zwaan Zaadteelt en Zaadhandel B.V.	VARIETY NAME OR TEMPORARY DESIGNATION <Type 625 RZ> 'TRITON'
ADDRESS (Street and No., or F.F.D. No., City, State, and ZIP Code) P.O. Box 40 - 2678 ZG De Lier, Holland.	FOR OFFICIAL USE ONLY PVPO NUMBER 8400044

Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g.  or ) when number is either 99 or less or 9 or less.

1. REGION OF ADAPTATION: (Where best adapted in the U.S.A.)

<input type="text" value="6"/>	1 = NORTHWEST	2 = NORTHCENTRAL	3 = NORTHEAST	4 = SOUTHEAST	5 = SOUTHWEST
	6 = MOST REGIONS				

2. SEASON: (Main crop)

<input type="text" value="3"/>	1 = LATE FALL - EARLY WINTER	2 = LATE WINTER - EARLY SPRING
	3 = LATE SPRING - EARLY SUMMER	4 = LATE SUMMER - EARLY FALL

3. MATURITY: (Days to 50% harvest)

<input type="text" value="0"/> <input type="text" value="6"/> <input type="text" value="4"/>	FROM TRANSPLANTS	<input type="text" value="1"/> <input type="text" value="0"/>	NO. DAYS HARVESTING PERIOD
<input type="text" value="0"/> <input type="text" value="9"/> <input type="text" value="9"/>	FROM DIRECT SEEDING		

4. PLANT HEIGHT: (At harvest)

<input type="text" value="2"/> <input type="text" value="1"/>	CM. FROM SOIL LINE TO TOP OF CURD	
<input type="text" value="0"/> <input type="text" value="4"/>	CM. TALLER THAN . . . . .	<input type="text" value="3"/> } 1 = EARLY ERFURT 2 = SUPER SNOWBALL A 3 = SNOWBALL Y 4 = VEITCH AUTUMN GIANT 5 = OTHER (Specify) <u>Celesta</u>
<input type="text" value="0"/> <input type="text" value="0"/>	CM. SHORTER THAN . . . . .	<input type="text" value="5"/>

5. LEAVES:

<input type="text" value="2"/> <input type="text" value="2"/>	TOTAL NUMBER	<input type="text" value="7"/> <input type="text" value="4"/>	CM. AVERAGE LENGTH AT MID-POINT OF PLANT (Including Petiole)
		<input type="text" value="3"/> <input type="text" value="3"/>	CM. AVERAGE WIDTH AT MID-POINT OF PLANT
<input type="text" value="2"/>	1 = STRAIGHT MARGINS 2 = WAVY MARGINS	<input type="text" value="2"/>	1 = THIN VEINS 2 = THICK VEINS
<input type="text" value="1"/>	1 = MOSTLY SESSILE 2 = MOSTLY PETIOLATE 3 = EQUALLY SESSILE AND PETIOLATE		
<input type="text" value="3"/>	COLOR: 1 = LIGHT GREEN 2 = MEDIUM GREEN (Snowball No. 10) 3 = DARK GREEN (Lacerf Group) 4 = BLUSH GREEN (November)	<input type="text" value="3"/>	1 = UPRIGHT, EXPOSE CURD 2 = INCURVED, PARTIALLY COVER CURD 3 = COMPLETELY COVER CURD (Self blanching)

6. CURD:

<input type="text" value="2"/> <input type="text" value="0"/>	CM. DIAMETER	<input type="text" value="1"/> <input type="text" value="3"/>	CM. DEPTH
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## 6. CURD:

8400044

☐ 1

1 = TIGHT

2 = LOOSE

☐ 2

SHAPE:

1 = FLAT

2 = SEMI-DOME

3 = DOME

☐ 1

1 = SMOOTH

2 = KNOBBY

☐ 1COLOR: 1 = BRIGHT WHITE  
3 = PURPLE-GREEN

2 = CREAMY, DULL WHITE

☐ 1

1 = NO LEAVES IN CURD

2 = LEAVES IN CURD

## 7. DISEASE RESISTANCE: (0 = Not Tested; 1 = Susceptible, 2 = Resistant. Specify race if known)

☐ 0

BLACK SPOT

☐ 0

CLUBROOT

☐ 0

PHYTOPHTHORA ROOT ROT

☐ 0

WHITE BLISTER

☐ 0

BLACK ROT

☐ 0

BOTTOM ROT

☐ 0

CERCOSPORELLA LEAF SPOT

☐ 0

DOWNY MILDEW

☐ 0

POWDERY MILDEW

☐ 0

VERTICILLUM WILT

☐ 0

BLACK LEG

☐ 0

CAULIFLOWER MOSAIC

☐ 0

RING SPOT

☐ 0

TURNIP YELLOW MOSAIC

☐ 0

YELLOWS

☐ 0

WIRE STEM

☐ 0

OTHER (Specify) \_\_\_\_\_

## 8. OTHER RESISTANCE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 2

"BUTTONING"

☐ 2

"BLINDNESS"

☐ 2

"RICEYNESS"

☐ 2

"WHIPTAIL"

☐ 0

INSECT (Specify) \_\_\_\_\_

## 9. INDICATE A VARIETY THAT MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	VARIETY	CHARACTER	VARIETY
MATURITY	Celesta	PLANT COLOR	Celesta
ADAPTATION	"	CURD SIZE	"
PLANT HABIT	"	CURD SHAPE	"
PLANT SIZE	"	CURD COLOR	"

## REFERENCE:

Nieuwhof, M. 1969. Cole Crops - World Crop Series, Leonard Hill.

## COMMENTS:

Re: question 2: actually from late spring until late fall

Re: question 3: date from 10 April sowing

Re: question 9: - genetic pure white flowering

- erect foliage

- providing complete curd cover.

EXHIBIT D Data Indicative of Novelty

Cauliflower ~~Nr. 625 RZ~~ Application No.

*'TRITON'*

Cauliflower ~~Nr. 625 RZ~~ most closely resembles Celesta, but  
matures about <sup>5</sup>~~2~~ days later.

*RJS SEE EXHIBIT B*



